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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,290	07/03/2003	Philip H. Snyder	6001-988	4009

7590

05/31/2005

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EXAMINER

GARTENBERG, EHUD

ART UNIT

PAPER NUMBER

3746

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/613,290

Applicant(s)

SNYDER ET AL.

Examiner

Ehud Gartenberg

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 12-29 and 31-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

Election/Restrictions

1. Regarding the apparatus species election requirement made in the last Office Action, Applicant elected the "bearing-less" apparatus species, claims 1-11. Regarding the method species election requirement made in the same Office Action, Applicant erred in reading and understanding the method species election requirement. Applicant was specifically required to elect between species b1 OR b21 OR b22; species b2 was not among those listed for election. Since Applicant elected species b22, claim 30 will be examined. In conclusion, claims 1-11 and 30 are examined. Claims 12-29 and 31-33 are withdrawn from consideration. These claims also read on the species of Fig. 6 together with Figs. 7 and 8 elected in a previous species election. Applicant made the election with traverse without giving any reasons.

Specification

2. The abstract is objected to because its one and two-thirds lines length it is too short and thin on content even for an Abstract. One of ordinary skill in the art would not understand from its reading the substance of the invention. Applicant is reminded that a properly written Abstract can be as long as 15 lines and contain up to 150 words (but no more).

3. The specification is objected to because of the following teachings that lack credibility:

A) on p. 10, ll. 15-16 state that nitrogen, carbon dioxide, and helium are contemplated as the working fluid; it is not clear how these gases could oxidize any fuel.

B) on p. 10, the bottom line states that the invention is contemplated to be used with a

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pulsed deflagration combustion process; it is not clear how such a process can make the disclosed apparatus operational. A detailed explanation is required.

C) on p. 11, I. 4 states that an aircraft powered by the invention can be an unmanned space device; it is not clear how the disclosed power plant can operate in vacuum.

D) On p. 14, the bottom line states that the present invention contemplates rotational speeds up to 100,000 revolutions per minute, that are in excess of 1,600 revolutions per second. In addition, on the next page a further statement indicates, "the present invention is not intended to be limited to these rotational speeds." Applicants is required to submit evidence that the invention has ever been operated at such speeds, or that any contemplated design may come close to indicate that such operational speeds, or higher, are feasible at all. It is believed that centrifugal forces would rip the invention apart at speeds very much lower than said speeds. A detailed explanation is required.

E) On p. 28, II. 11-12 state that: "The admission of gas via port 222 can be accomplished by a shock wave." This teaching is completely unclear.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to

which it pertains, or with which it is most nearly connected, to make and/or use the invention. The elected species is shown in Figures 6, 7 and 8. Figure 6 is a diagrammatic sketch of the claimed invention; Figure 7 is an incomplete isometric view of the invention, and Figure 8 is a spatial representation of the operational time sequence of the invention. The last paragraph of claim 1 that claims "a fuel deliverer adapted to deliver a fuel within said buffer exit port adjacent the rotatable rotor, wherein said fuel deliverer delivers fuel into a first portion of said buffer gas exit port and not into a second portion of said buffer gas exit port" is not enabled, and furthermore could not even be understood in light of the disclosure. Applicant is required to amend Figure 7 to include all the numerals listed in the first paragraph of page 27, and furthermore to indicate where in the disclosure the claimed first and second portions were defined. This limitation seems to be copied verbatim from the last four lines of the first paragraph on p. 3, but that paragraph is not enabling either. In addition, it is noted that the teachings of said first paragraph on p. 27 are not enabled, e.g., supply tubes (gas) 227" located within the rotor. This is only one typical example. No new matter will be permitted. Regarding claims 2 and 9-11, the location and shape of the leading portion of the buffer gas exit port are not enabled. Regarding claim 3, it is not enabled where the "initial about fifteen percent of said buffer gas inlet port" are measured from. Note that it is practically impossible to determine these limitations from Fig. 7. Regarding claims 4 - 5, the location and shape of the leading and last portions of the buffer gas inlet port are not enabled. Regarding claims 6 and 9-11, the plurality of fuel delivery devices spaced

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across the buffer gas inlet are not enabled. Regarding claim 7, the claimed passageway is not enabled.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This rejection is related to the previous rejection under 35USC112, 1st paragraph. It is not clear which are the claimed first and second portions of said buffer gas exit port.

Double Patenting

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double

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patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claim 1 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 41 of U.S. Patent No. 6449939. Although the conflicting claims are not identical, they are not patentably distinct from each other because to the extent that the last paragraph of claim 1 could be understood, it reads on the limitations of dependent claim 41 and base claim 38. Claim 30 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 7 of U.S. Patent No. 6449939. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 7 claims providing a turbine to base claim 1, and it would have been obvious (if not inherent) to one of ordinary skill in the art at the time of the claimed invention that a fluid flowing through the turbine expands in the process of energy extraction by the turbine.

Conclusion

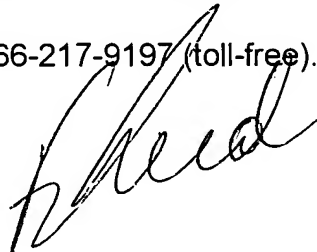
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lupkes US 2004/0216464.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ehud Gartenberg whose telephone number is 571 272 4828. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Thorpe can be reached on 571 272 4444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ehud Gartenberg
Primary Examiner
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05252005